HYDRALUX SYSTEMS



2025



Comprehensive catalog showcasing innovative, high-quality products tailored for diverse customer needs.

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Charger

Water Softener

How a water softener works:

A water softener removes hardness minerals like calcium and magnesium that cause scale buildup, dry skin, and cloudy dishes. Inside the softener tank, water flows through a bed of tiny resin beads charged with sodium ions. As the hard water passes through, the resin captures the hardness minerals and releases sodium in exchange — leaving you with clean, soft water throughout your home.

The Regeneration Cycle:

Over time, the resin beads become saturated with minerals and must be cleaned. During regeneration, the system automatically flushes a salt brine solution through the resin tank. This process washes away the trapped minerals and recharges the beads with fresh sodium ions. Once complete, the softener rinses itself and returns to service, ready to deliver soft water again.

Maintenance:

This is a demand initiated system. It regenerates based on gallons used, making it very efficient. Customers report filling the salt tank 2-3 times a year.



How it helps:

For Your Home

- Prevents buildup of mineral scale (limescale) on pipes, fixtures, and appliances, which can shorten their lifespan and reduce efficiency.
- Protects appliances by extending the life of water heaters, dishwashers, washing machines, and other appliances by preventing mineral deposits from forming inside them.
- Improves plumbing by removing hardness minerals like calcium and magnesium, softeners prevent your plumbing system from clogging.
- Reduces cleaning effort by eliminating water spots on dishes and glasses, and reduces soap scum and mineral stains on tubs and fixtures, saving time and effort on cleaning.

For You

- Softer skin and hair by reducing the amount of soap and shampoo needed for effective cleaning and is gentle on the skin and hair, helping to maintain natural oils. Softened water creates a better lather and cleans more effectively.
- Brighter, softer laundry: Clothes come out brighter and softer when washed in softened water, as mineral buildup is prevented.

For your wallet

- Saves money on cleaning products by using less soap and detergent overall, saving you money.
- Reduces appliance replacement costs by extending the life of your appliances.
- Lowers utility bills: Improved water heater efficiency can lead to significant savings on energy costs.



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Carbon Filter

How a Non Backwashing Carbon Filter works:

A non-backwashing carbon filter provides clean, freshtasting water by using high-quality activated carbon to remove chlorine, chemicals, and unpleasant odors. As water flows through the carbon media, impurities are adsorbed (trapped) on the surface of the carbon granules, leaving behind clear, naturally balanced water. Unlike traditional backwashing filters, this system operates continuously without requiring a regeneration or rinse cycle, making it simple, quiet, and efficient. It's the perfect low-maintenance solution for homes seeking cleaner, better-tasting water with minimal upkeep.

Maintenance:

Because there's no backwash or electronic control valve, maintenance is minimal. Over time, the carbon media becomes saturated and should be replaced, typically every 3–5 years depending on water quality and usage. This simple replacement restores the system's full filtering power and keeps your water fresh and chemical-free year-round.



How it helps:

For Your Home

- Removes chlorine and chemical odors so you can enjoy clean, odor-free water from every tap.
- Protects plumbing and appliances by reducing exposure to chlorine that can degrade rubber seals and gaskets.
- Improves overall water clarity by keeping water looking and smelling noticeably fresher.

For You

- Better taste and smell, perfect for drinking, cooking, coffee, and ice.
- Gentle on skin and hair by eliminates the drying effects of chlorine and chemical additives.
- Whisper-quiet operation with no backwash cycles, noise, or drainage required.

- Low operating costs with no electricity, backwash water, or salt needed.
- Long-lasting media as Carbon typically lasts 3–5 years before replacement.
- Simple maintenance as it is easy to service and is more cost-effective over time.



<u>Charger</u>

Iron Breaker

How an Iron Breaker works:

An iron breaker removes iron, manganese, and sulfur that cause staining, metallic tastes, and unpleasant odors in your water. The system works by oxidizing dissolved iron and sulfur as water passes through a special air-injection tank. Once exposed to air, these contaminants turn into solid particles that are then trapped in the filter media, leaving your water clean, clear, and fresh.

The Regeneration Cycle

During regeneration, the iron breaker automatically releases the captured iron and sulfur from the media bed. The system flushes these particles out through a rinse cycle and replenishes the air pocket inside the tank. This restores the system's filtering capacity and ensures consistent performance, without the need for chemicals or salt.

Maintenance:

An automatic backwash filter unit requires little to no annual maintenance.



How it helps:

For Your Home

- Protects plumbing and appliances by preventing rust buildup and staining in pipes, faucets, and fixtures.
- Keeps laundry and surfaces spotless by eliminating orange or black staining on sinks, tubs, and clothing.
- Improves water quality throughout your home by delivering clean, odor-free water from every tap.

For You

- Better taste and smell by removing metallic tastes and sulfur ("rotten egg") odors for fresher drinking water.
- Gentle on skin and hair by reducing irritation caused by iron and mineral-heavy water.
- Peace of mind with consistently clear water without harsh chemicals or constant maintenance.

- Extends equipment life by protecting water heaters, dishwashers, and laundry machines from iron damage.
- Reduces cleaning costs by cutting down on rust stains, detergent use, and replacement of stained fixtures.
- Low maintenance savings by operating automatically and eliminating costly additives or frequent service calls.



<u>Charger</u>

Acid Neutralizer

How an Acid Neutralizer works:

An acid neutralizer corrects low pH (acidic) water that can corrode plumbing, stain fixtures, and give water a metallic taste. Inside the system, water flows through a tank filled with natural calcium carbonate media. As the acidic water passes through, it dissolves just enough of the media to raise the pH to a balanced, neutral level, protecting your plumbing and improving overall water quality.

The Regeneration Cycle

Unlike other filtration systems, most acid neutralizers use a simple backwash cycle rather than a chemical or salt-based regeneration. During backwash, the system reverses water flow to lift and clean the media bed, flushing out sediment and restoring even distribution. This ensures consistent neutralization and long-lasting protection with minimal maintenance.

Maintenance:

This system requires a yearly recharge to top-off the media within the tank.



How it helps:

For Your Home

- Protects corrosion and blue-green stains in pipes and fixtures as well as leaks caused by acidic water.
- Improves water clarity by reducing cloudiness and metallic discoloration in sinks, tubs, and toilets.
- Increases plumbing lifespan by keeping copper and metal components from deteriorating over time.

For You

- Better-tasting water by removing the sharp, metallic flavor associated with acidic water.
- Healthier for skin and hair by balancing pH and helping to reduce dryness and irritation.
- Peace of mind by providing consistent protection for your water system.

- Prevents costly repairs by avoiding premature pipe replacement and plumbing service calls.
- Extends appliance life by protecting water heaters, dishwashers, and laundry equipment from corrosion damage.
- Low operating cost by using natural media and requires no salt, chemicals, or electricity for treatment.



Pentair

Sediment Filter

How a Sediment Filter works:

A sediment filter is your home's first line of defense against dirt, sand, rust, and other debris in the water supply. As water flows through the filter housing, a specialized cartridge or media traps suspended particles, keeping them from entering your plumbing, appliances, and other treatment systems. This simple yet powerful step ensures cleaner, clearer water throughout your entire home.

Maintenance

Sediment filters don't use a regeneration process like other systems. Instead, they require periodic cleaning or cartridge replacement to maintain peak performance. Depending on your water quality and filter type, replacements are typically needed every 3–6 months. Keeping the filter fresh ensures maximum protection for your plumbing and equipment.



How it helps:

For Your Home

- Protects your plumbing system by prevents buildup of grit and debris inside pipes and fixtures.
- Extends the life of other filters by keeping softeners, iron breakers, and neutralizers running efficiently by catching large particles first.
- Improves water clarity by reducing visible sediment for cleaner, clearer water throughout your home.

For You

- Cleaner water from every tap by eliminating the cloudiness or "gritty" texture in drinking and bathing water.
- Improves taste and appearance by keeping water fresh and appealing while protecting fixtures from staining.
- Simple peace of mind with a low-maintenance solution that quietly guards your entire system.

- Reduces maintenance costs by helping to prevent clogging and premature wear on downstream equipment.
- Protects appliances and fixtures, minimizing repairs and replacements caused by sediment buildup.
- Affordable upkeep as cartridge changes are quick, inexpensive, and easy to manage.



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Ultraviolet (UV)

How UV Purification works:

A UV (ultraviolet) purification system provides chemical-free disinfection by neutralizing bacteria, viruses, and other microorganisms in your water. As water passes through the stainless-steel chamber, it's exposed to powerful UV light that disrupts the DNA of harmful pathogens, rendering them harmless and unable to reproduce. This process ensures safe, purified water without altering its taste, odor, or mineral balance.

Maintenance

UV systems don't require backwashing or regeneration. Instead, they use a long-lasting UV lamp that should be replaced about once per year to maintain optimal intensity. The quartz sleeve surrounding the lamp may also be cleaned periodically to remove mineral buildup, ensuring clear light transmission and consistent protection.



How it helps:

For Your Home

- Provides whole-house protection by disinfecting water at the point of entry for safe water at every tap.
- Chemical-free purification by eliminating the need for chlorine or other harsh disinfectants.
- Pairs seamlessly with other systems by complementing softeners, filters, and neutralizers for total water quality.

For You

- Safe, healthy water by destroying 99.9% of harmful microorganisms, protecting your family's health.
- Preserves natural taste by keeping your water fresh and free from chemical aftertastes.
- Peace of mind by ensuring clean, microbiologically safe water for drinking, bathing, and cooking.

- Low operating cost by consuming minimal electricity and requires only annual lamp replacement.
- No chemicals to purchase saves money and reduces environmental impact.
- Protects your investment by preventing microbial growth in plumbing and fixtures, extending system life.



Water-Right

Reverse Osmosis (RO)

How Reverse Osmosis (RO) works:

A reverse osmosis (RO) system delivers the purest drinking water available by using a multi-stage filtration process. Water is pushed through a semi-permeable membrane that removes dissolved solids, chemicals, heavy metals, and contaminants at the molecular level. The result is clear, great-tasting water, perfect for drinking, cooking, coffee, and ice.

Maintenance

RO systems use several replaceable filters and a membrane to maintain peak performance. The prefilters (sediment and carbon) are typically replaced every 6–12 months, while the RO membrane lasts 2–3 years depending on water quality. Routine maintenance keeps your system efficient and ensures consistently high-quality water for your family.



How it helps:

For Your Home

- Premium, bottled quality drinking water delivered straight from your tap.
- Removes up to 99% of contaminants by filtering out lead, fluoride, chlorine, arsenic, and more.
- Protects your family's appliances by reducing scale buildup in coffee makers, kettles, and refrigerators.

For You

- Healthier, better-tasting water with clean, refreshing water, free from odor or chemical taste.
- Perfect for cooking and beverages by enhancing the flavor of coffee, tea, soups, and sauces.
- Peace of mind with reliable, worry-free drinking water.

- Saves money long-term by eliminates the need for bottled water or delivery services.
- Low maintenance costs by only requiring periodic filter and membrane changes.
- Energy efficient with the ability for some models to operate without electricity and by using household water pressure.



HydraLux Systems



About Us

At HydraLux Systems, clean, safe, and great-tasting water isn't just our mission — it's our legacy. Founded by Roy, a second-generation water specialist, HydraLux was built on decades of hands-on experience, craftsmanship, and care.

Roy began working alongside his father at just 15 years old, learning the art and science of water treatment from the ground up. Today, he carries that legacy forward with the same integrity and dedication that defined his father's work, helping families across Virginia and the DMV enjoy water they can truly trust.

Whether it's a softener, iron breaker, reverse osmosis unit, or full home system, every HydraLux installation reflects our promise: "Where Purity Meets Precision."

The HydraLux Difference

Rooted in Legacy. Driven by Innovation.

HydraLux combines old-school integrity with cutting-edge water technology to deliver results you can see, taste, and feel. Our approach is simple: educate, not upsell.

We provide:

- Free, professional water testing so you know exactly what's in your water.
- Custom-built treatment systems designed for your home's specific needs.
- Transparent, no-pressure guidance backed by years of field experience.
- A Lifetime warranty that protects your investment and peace of mind.

As an independently owned and locally operated company, HydraLux proudly serves our community with honesty, reliability, and lasting relationships. When you choose us, you're not just getting better water — you're gaining a trusted partner for years to come.

Our Equipment

At HydraLux, quality starts with the equipment we install and that's why we exclusively partner with Clack and Charger for our systems.

- <u>Clack</u> Valves: Renowned for their precision engineering and durability, Clack control valves are the gold standard in the water treatment industry. Each valve is American-made and designed for efficiency, reliability, and long-term performance, ensuring your system runs smoothly year after year.
- <u>Charger</u> Water Systems: Charger provides industry-leading tanks, media, and components built to last. Their commitment to innovation and quality aligns perfectly with HydraLux's mission to deliver clean, dependable water solutions for every home.
- Together, Clack and Charger represent the best in water treatment technology, trusted brands that reflect our values of integrity, performance, and precision.